
Industry/TSTF Standard Technical Specification Change Traveler

Add a Criteria Discussion to TSP LCO

Priority/Classification 2) Consistency/Standardization

NUREGs Affected: ☐ 1430 ☐ 1431 ☒ 1432 ☐ 1433 ☐ 1434

Description:

Specification 3.5.5, TSP, does not have an applicable criteria discussion. This change adds such a discussion.

Justification:

The "Applicable Safety Analysis" Section of the Specification 3.5.5 Bases does not identify the criteria which the TSP LCO satisfies. TSP satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii). It is part of the primary success path which functions to mitigate a design basis accident or transient.

While the TSP LCO does provide an operating restriction (TSP Volume), this restriction is not monitored or controlled during power operation. The TSP volume is verified on a refueling basis. Thus the LCO does not satisfy Criterion 2.

Revision History**OG Revision 0****Revision Status: Closed**

Revision Proposed by: Millstone 2

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 29-May-96

Owners Group Comments
(No Comments)Owners Group Resolution: Approved Date: 04-Jun-96

TSTF Review Information

TSTF Received Date: 01-Jul-96

Date Distributed for Review 31-Jul-96

OG Review Completed: ☒ BWOG ☒ WOG ☒ CEOG ☒ BWROG

TSTF Comments:

BWOG - Not applicable, BWOG accepts

WOG - Not applicable, WOG accepts

BWROG - Not Applicable, BWROG accepts

TSTF Resolution: Approved Date: 10-Oct-96

4/2/98

NRC Review Information

NRC Received Date: 22-Jan-97

NRC Reviewer: Weston, M.

NRC Comments:

3/6/97 - Reviewer recommends approval.

3/17/97 - To C. Grimes for disposition.

4/16/97 - Addition of Criterion 3 is acceptable, but the addition of 10 CFR 50.36(c)(2)(ii) must be resolved consistently.

4/16/97 - TSTF prepared revision eliminating the reference to 10 CFR 50.36(c)(2)(ii).

Final Resolution: Superseded by Revision

Final Resolution Date: 24-Jun-97

TSTF Revision 1**Revision Status: Active****Next Action:**

Revision Proposed by: NRC

Revision Description:

Revision eliminates the reference to 10 CFR 50.36(c)(2)(ii)

TSTF Review Information

TSTF Received Date: 16-Apr-97

Date Distributed for Review 17-Apr-97

OG Review Completed: ☒ BWOG ☒ WOG ☒ CEOG ☒ BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 13-May-97

NRC Review Information

NRC Received Date: 24-Jun-97

NRC Reviewer: Weston, M.

NRC Comments:

(No Comments)

Final Resolution: NRC Approves

Final Resolution Date: 03-Oct-97

Incorporation Into the NUREGs

File to BBS/LAN Date:

TSTF Informed Date:

TSTF Approved Date:

NUREG Rev Incorporated:

Affected Technical Specifications

S/A 3.5.5 Bases

TSP

4/2/98

BASES

BACKGROUND (continued)

solution pH above 7.0 also reduces the occurrence of SCC of austenitic stainless steel components in containment. Reducing SCC reduces the probability of failure of components.

Granular TSP dodecahydrate is employed as a passive form of pH control for post LOCA containment spray and core cooling water. Baskets of TSP are placed on the floor or in the sump of the containment building to dissolve from released reactor coolant water and containment sprays after a LOCA. Recirculation of the water for core cooling and containment sprays then provides mixing to achieve a uniform solution pH. The dodecahydrate form of TSP is used because of the high humidity in the containment building during normal operation. Since the TSP is hydrated, it is less likely to absorb large amounts of water from the humid atmosphere and will undergo less physical and chemical change than the anhydrous form of TSP.

APPLICABLE SAFETY ANALYSES

The LOCA radiological consequences analysis takes credit for iodine retention in the sump solution based on the recirculation water pH being ≥ 7.0 . The radionuclide releases from the containment atmosphere and the consequences of a LOCA would be increased if the pH of the recirculation water were not adjusted to 7.0 or above.

TSP satisfies Criterion 3 of the NRC Policy Statement.

LCO

The TSP is required to adjust the pH of the recirculation water to > 7.0 after a LOCA. A pH > 7.0 is necessary to prevent significant amounts of iodine released from fuel failures and dissolved in the recirculation water from converting to a volatile form and evolving into the containment atmosphere. Higher levels of airborne iodine in containment may increase the release of radionuclides and the consequences of the accident. A pH > 7.0 is also necessary to prevent SCC of austenitic stainless steel components in containment. SCC increases the probability of failure of components.

The required amount of TSP is based upon the extreme cases of water volume and pH possible in the containment sump after a large break LOCA. The minimum required volume is the volume of TSP that will achieve a sump solution pH of

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